

SEQUENCE LISTING

<110> Anderson, Marilyn A.
Atkinson, Angela H.
Heath, Robyn L.
Clarke, Adrienne E.

<120> PROTEINASE INHIBITOR, PRECURSOR THEREOF AND GENETIC
SEQUENCES ENCODING SAME

<130> 9748B

<140> 09/431,500

<141> 1999-11-01

<150> 08/454,295

<151> 1995-09-01

<160> 16

<170> PatentIn Ver. 2.1

<210> 1

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<212> DNA

<213> Nicotiana alata

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Ala Gly Thr Lys Gly Cys Lys Tyr Phe Ser Asp Asp Gly Thr Phe Val
35 40 45

Cys Glu Gly Glu Ser Asp Pro Arg Asn Pro Lys Ala Cys Thr Leu Asn
50 55 60

Cys Asp Pro Arg Ile Ala Tyr Gly Val Cys Pro Arg Ser Glu Glu Lys
65 70 75 80

Lys Asn Asp Arg Ile Cys Thr Asn Cys Cys Ala Gly Thr Lys Gly Cys
85 90 95

Lys Tyr Phe Ser Asp Asp Gly Thr Phe Val Cys Glu Gly Glu Ser Asp
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Pro Arg Asn Pro Lys Ala Cys Pro Arg Asn Cys Asp Pro Arg Ile Ala
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Tyr Gly Ile Cys Pro Leu Ala Glu Glu Lys Lys Asn Asp Arg Ile Cys
130 135 140

Thr Asn Cys Cys Ala Gly Lys Lys Gly Cys Lys Tyr Phe Ser Asp Asp
145 150 155 160

Gly Thr Phe Val Cys Glu Gly Glu Ser Asp Pro Lys Asn Pro Lys Ala
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Cys Pro Arg Asn Cys Asp Gly Arg Ile Ala Tyr Gly Ile Cys Pro Leu
180 185 190

Ser Glu Glu Lys Lys Asn Asp Arg Ile Cys Thr Asn Cys Cys Ala Gly
195 200 205

Lys Lys Gly Cys Lys Tyr Phe Ser Asp Asp Gly Thr Phe Val Cys Glu
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Gly Glu Ser Asp Pro Lys Asn Pro Lys Ala Cys Pro Arg Asn Cys Asp
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Gly Arg Ile Ala Tyr Gly Ile Cys Pro Leu Ser Glu Glu Lys Lys Asn
245 250 255

Asp Arg Ile Cys Thr Asn Cys Cys Ala Gly Lys Lys Gly Cys Lys Tyr
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Phe Ser Asp Asp Gly Thr Phe Val Cys Glu Gly Glu Ser Asp Pro Arg
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Asn Pro Lys Ala Cys Pro Arg Asn Cys Asp Gly Arg Ile Ala Tyr Gly
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Ile Cys Pro Leu Ser Glu Glu Lys Lys Asn Asp Arg Ile Cys Thr Asn
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Cys Cys Ala Gly Lys Lys Gly Cys Lys Tyr Phe Ser Asp Asp Gly Thr
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<211> 58

<212> PRT

<213> Nicotiana alata

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Asn Pro Lys Ala Cys Thr Leu Asn Cys Asp Pro Arg Ile Ala Tyr Gly
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Val Cys Pro Arg Ser Glu Glu Lys Lys Asn
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<212> PRT

<213> Nicotiana alata

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Asn Pro Lys Ala Cys Pro Arg Asn Cys Asp Pro Arg Ile Ala Tyr Gly
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Ile Cys Pro Leu Ala Glu Glu Lys Lys Asn
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Asn Pro Lys Ala Cys Pro Arg Asn Cys Asp Gly Arg Ile Ala Tyr Gly
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Ile Cys Pro Leu Ser Glu Glu Lys Lys Asn
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<212> PRT

<213> Nicotiana alata

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1 5 10 15

Phe Ser Asp Asp Gly Thr Phe Val Cys Glu Gly Glu Ser Asp Pro Lys
20 25 30

Asn Pro Lys Ala Cys Pro Arg Asn Cys Asp Gly Arg Ile Ala Tyr Gly
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Ile Cys Pro Leu Ser Glu Glu Lys Lys Asn
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 Asn Pro Lys Ala Cys Pro Arg Asn Cys Pro Gly Arg Ile Ala Tyr Gly
 35 40 45
 Ile Cys Pro Leu Ser Glu Glu Lys Lys Asn
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 35 40 45
 Ser Lys Val Ala Val Ser
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<210> 15

<211> 4

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<213> Artificial Sequence

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<222> (1)..(2)

<223> Xaa can be any amino acid

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<213> Artificial Sequence

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<223> Description of Artificial
Sequence:Protease-sensitive peptide

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<222> (1)

<223> Xaa is Ile or Val

<220>

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<222> (4)
<223> Xaa is Arg or Leu

<220>
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<222> (5)
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<223> Xaa is Thr or Lys

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Cys Cys Ala Gly Xaa Lys Gly
20